

A NEW *LESPEZIA* CONFUSED WITH *L. ALETIAE*
(DIPTERA: TACHINIDAE)

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ABSTRACT—*Lespesia stonei*, n. sp., previously confused with the common *L. aletiae*, is described as a parasite of notodontid genera *Symmerista* and *Heterocampa*. The recognition characters for *L. laniferac* are revised and a partially revised key to *Lespesia* is presented.

The genus *Lespesia* Robineau-Desvoidy (formerly *Achaetoneura*) is one of the commonest genera of North American Tachinidae. Twenty-one Nearctic species are recognized in the latest revision (Beneway 1963), and adults of several of the species, including *L. aletiae* (Riley), are commonly reared from numerous lepidopterous hosts. *Lespesia aletiae* has been one of the most distinctive species, both terga 1 + 2 and 3 of the abdomen lacking median marginal bristles, a character shared only with *L. rileyi* (Williston) in this genus. Recently, I realized that two species, at least the males, have been confused under the name *aletiae*. A survey of available material indicates that true *aletiae* is so much more common that misidentifications are probably relatively few. I am indebted to Dr. John F. Anderson of the Connecticut Agricultural Experiment Station at New Haven for securing a good series of specimens from the red-humped oakworm, *Symmerista canicosta* Franclemont, which made possible the recognition and definition of the new species near *aletiae*.

Males of the new species keyed directly and easily to *L. aletiae* because of the absence of median marginal bristles on terga 1 + 2 and 3, but the females had median marginals on tergum 3 and hence did not agree with females of *aletiae*. The male genitalia proved to be distinct from those of *aletiae*, and other less obvious differences were also found. Extensive comparisons were carried out with other species, especially to be sure that the female had not been described elsewhere, and it was finally concluded that the species was undescribed. Males alone would undoubtedly have been misidentified in the past as *aletiae*, a species regarded as so distinct on the basis of abdominal chaetotaxy that the male genitalia were not examined. Unassociated females, if identified beyond genus—a more or less uncertain matter in *Lespesia*—might have been called *cuculliae* or *schizurae*. The published descriptions of *aletiae* fit the present species so well that a full description seems unnecessary.

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The three known hosts of the new species are all Notodontidae, but the sample is small and the host relationship is not necessarily significant.

I take pleasure in dedicating this species to Alan Stone, my good friend for forty years and a respected colleague for nearly three decades, in recognition of his contributions to dipterology and to the Entomological Society of Washington.

Lespesia stonei Sabrosky, new species

A relatively large species (10 mm), the general color, proportions, and chaetotaxy as described for *aletiae* by Beneway (1963: 636) and Sabrosky and Reardon (1976: 57) unless otherwise noted; abdomen predominantly black, dark reddish on sides but broadly black on dorsum; tergum 5 of abdomen with longer and stronger bristles and bristlelike hairs than in *aletiae*, although this appearance is probably a function of the larger size, at least in part; scutellum with 4 pairs of lateral bristles, or in other words, with 2 intermediate laterals on each side between subapical and basal bristles; mid tibia with a short and weak bristle, or occasionally 2, just proximad of the usual long and strong median anterodorsal bristle; claws and pulvilli longer than distal tarsomere.

Males: Frons similar to that of *aletiae*, narrow compared with most species in the genus, viewed from above the width at vertex little over $\frac{1}{2}$ the width of an eye and less than $\frac{1}{4}$ the head width; as in *aletiae*, no median marginal bristles on both terga 1+2 and 3; hind tibia densely and evenly ciliate, without a longer bristle in the row (exception in one specimen); male genitalia distinctly different from those of *aletiae*, cerci long, slender, and almost straight, surstyli moderately narrow and tapering to narrowly rounded apex (fig. 1).

Females: No median marginal bristles on abdominal tergum 1+2, but a strong pair on tergum 3, unlike *aletiae*; hind tibia as in *aletiae*, with long median bristle in anterodorsal row of cilia.

Holotype male, allotype, and 22 paratypes (9♂♂, 13♀♀), Sterling, Conn., various dates 1973-74 (R. or B. Moore, or M. Fergione), reared from *Symmerista canicosta*. Other paratypes: 1♂, 2♀♀, Voluntown, Conn., Sept. 18, Oct. 2 and 8, 1974 (M. Fergione), from *S. canicosta*; 1♂, Frederick, Md., May 10, 1974 (C. L. Staines, Jr.), reared from *Heterocampa manteo* (Doubleday); 1♂, Gull Lake Biological Station, Kalamazoo Co., Mich., June 23, 1959 (R. L. Fischer); 4♂♂, 1♀, Lewis Co., N.Y., May-June 1935 (D. C. Allen), reared from *Symmerista leucitys* Franclemont; 1♂, Jackson, S.C., May 24, 1959, trap light (W. Tarpley). Holotype, allotype, and paratypes in the U.S. National Museum, Type No. 74016; paratypes in the collection of the Connecticut Agricultural Experiment Station and the New York State University College of Forestry at Syracuse University.

In *Lespesia*, males of *L. stonei* share with only *aletiae* and *rileyi* the distinctive character of lacking median marginal bristles on the 3rd abdominal tergum (apparent 2nd). *Lespesia rileyi* is much different from the other species, however, having predominantly reddish

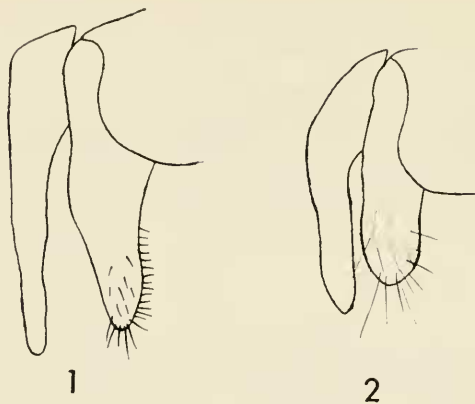


Fig. 1, 2, male terminalia. 1, *Lespesia stonei*. 2, *L. aletiae*.

and chiefly shining abdomen, wide male frons, and short claws and pulvilli. *Lespesia stonei* differs from *aletiae* principally in lacking a long median bristle in the ciliate anterodorsal row on the hind tibia, and in the male genitalia (fig. 1), as well as in larger size (10 vs. 8 mm). Like *aletiae*, it has 4 pairs of lateral scutellars and long claws and pulvilli. Both *aletiae* and *stonei* have a relatively narrow frons, at the vertex obviously narrower than the width of an eye and approximately one-fourth the head width, and in this respect they resemble only *schizurae*, *melalophae*, *pholi*, and *testacea* in the large genus *Lespesia*.

Females of *Lespesia* are less distinctive and correspondingly more difficult to identify with assurance unless they are associated with males. The characters of predominantly black abdomen, 4 pairs of lateral scutellars, and median marginal bristles absent on tergum 1 + 2 (apparent 1st) but present on tergum 3 associate *L. stonei* only with *cuculliae*, *pholi*, *laniiferae*, and *schizurae*. *Lespesia laniiferae* (Webber), of which the holotype and allotype are before me, is a much smaller species than *stonei*, and the first two antennal segments are bright red. Moreover, it has been erroneously placed in Beneway's key; it is actually a species with predominantly reddish abdomen, with only a narrow, almost linear black stripe. In *L. pholi* (Webber), the thorax is yellowish gray and the parafrontals are decidedly yellow. Females of *L. schizurae* (Townsend) are very close to those of *stonei* and the two will be difficult to distinguish unless associated with males. In *schizurae* the anterodorsal cilia on the hind tibia are shorter and slightly wider apart, but the difference is one of slight degree and my sample is rather small. *Lespesia cuculliae* (Webber), known only from females, is a small species with short 3rd antennal segment, barely over twice the length of the 2nd

segment. One other species, *L. fasciagaster* Beneway, is also known only from the female sex, but that is a much different species: the frons and parafacials are unusually broad and the antennae are largely reddish, and it is probably near *L. archippivora* (Riley).

The position of the new species and the revised position of *L. lanii-ferae* can best be shown by a partial key to the males, which are more distinctive than females. Males are unknown for two species, *L. cuculliae* (Webber) and *L. fasciagaster* Beneway. Females of the latter have unusually broad frons, and it seems probable that it is a species near *archippivora* (see couplet 5).

Key to males

- 1. Abdomen predominantly reddish except for narrow median black stripe dorsally 2
- Abdomen predominantly black, red only on sides 5
- 2. Claws and pulvilli longer than distal tarsomere; frons obviously narrower than width of an eye and about 1/4 width of head *L. testacea* (Webber)
- Claws and pulvilli shorter than distal tarsomere; frons relatively broad, subequal to or greater than width of an eye and nearly 1/3 width of head 3
- 3. Abdomen dull, almost entirely gray to yellowish-gray tomentose *L. lanii-ferae* (Webber)
- Abdomen predominantly shining, tomentose only narrowly at bases of terga 3 to 5 4
- 4. No median marginal bristles on terga 1 + 2 and 3; hind tibia without a long median bristle anterodorsally in the row of cilia *L. rileyi* (Williston)
- Median marginal bristles present on terga 1 + 2 and 3, those on 3 strong; hind tibia with long bristle midway in the anterodorsal row of cilia *L. ferruginea* (Reinhard)
- 5. Claws and pulvilli longer than distal tarsomere 6
- Claws and pulvilli shorter than distal tarsomere *L. archippivora* (Riley), *L. parva* Beneway, *L. texana* (Webber), *L. westonia* (Webber)
- 6. No median marginal bristles on tergum 3 7
- Median marginals present on tergum 3 8
- 7. Hind tibia with a long bristle anterodorsally in row of cilia; cerci and surstyli short (fig. 2) *L. aletiae* (Riley)
- Hind tibia closely and evenly ciliate anterodorsally, without a longer bristle in the row; cerci elongate and slender, the surstyli longer and narrower than in *aletiae* (fig. 1) *L. stonei* n. sp.
- 8. (The remaining species of *Lespesia*).

REFERENCES

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